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NOTES  
ON  
DRAGONFLIES OF JAMAICA

BY  
C. B. WILSON

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## DRAGONFLIES OF JAMAICA\*

BY CHARLES B. WILSON

The dragonflies of Jamaica are subject to peculiar environmental conditions which exert an important influence on their distribution and abundance. Nearly all of the Odonata demand quiet fresh water for the laying of their eggs and the rearing of their young. But such bodies of water are comparatively rare on the island, are widely scattered with long intervals between, and are usually small and densely filled with aquatic life, both animal and vegetable.

All the rivers of Jamaica and most of the streams have far too swift a current for dragonfly larvæ except close to the ocean, and only one or two species frequent them. The first result is that practically the entire dragonfly fauna is confined to the immediate vicinity of the isolated ponds and quiet streams.

Hence there is much crowding and as a second result some of the dragons like *Trithemis umbrata* and *Orthemis ferruginea* utilize almost any pool of water they can find, in company with the mosquitoes and gnats. And they may often be seen depositing their eggs in the tiny rain pools which collect in the hollows of the honeycombed limestone rocks.

Again some of the damsel flies like *Micronympha ramburii* and *Anomalagrion hastatum* frequent for the same purpose the water pools formed inside the wild pines (*Bromelia*).

There is always plenty of water here and enough mosquito and gnat larvæ to furnish the damsel nymph with an abundance of food. But the water in the rock pools frequently dries up, and it is doubtful whether any of the dragon larvæ, hatched in those pools, are ever transformed into adults.

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\* Notes from the Johns Hopkins University Laboratory at Montego Bay, Jamaica. B. W. I., summer of 1910.



Perhaps the most striking peculiarity of the adults is their quiet coloration. Hardly a single example of really brilliant colors was noted during the entire season, and this absence was especially apparent among the damsel flies where ordinarily there is such a rich variety of hues.

They were all, dragons and damsels alike, dressed in rather sober reds and browns or grays and blacks, with little of the iridescent and metallic colors.

Another unexpected character was the entire absence of the larger species of both dragon and damsel flies. Not a single representative of such genera as *Anax*, *Aeschna*, *Gomphaeschna*, *Boyeria*, *Macromia*, *Gomphus*, or *Libellula* was seen during the season, and practically the same may be said of the damsel genera *Calopteryx*, *Heterina*, *Argia*, and *Lestes*. A single specimen of *Heterina bipartita* has been reported from the Island by Carpenter (Journal Jamaica Institute, II, p. 261), but has never been seen by others. Calvert's new genus *Ortholestes* is one of the larger damsel flies, but *Lestes spumarius* is only of medium size.

On the other hand the smaller species were everywhere in evidence; the tiny dragons *Trithemis justiniani* and *Micrathyria aequalis*, together with the small damsels *Ceratura capreola* and *Micronympha ramburii* were especially abundant.

Another remarkable fact in connection with these Odonata is that they show almost exclusive neotropical affinities.

There is not a single nearctic or sonoran dragon fly in the list, and only a few that are sonoran as well as neotropical. There is but one species peculiar to Jamaica, *Ortholestes clara*; six are confined to the West Indies, viz: *Trithemis justiniani*, *Macrothemis celeno*, *Dythemis rufinervis*, *Scapania frontalis*, *Micrathyria didyma*, and *Lestes spumarius*. The other eighteen are found on the mainland of South, Central, or North America, with the preponderance decidedly in favor of the first mentioned.



Thus the statement made by Kolbe (Archiv für Naturgeschichte, LIV, p. 153) that the West Indian Neuroptera show marked South American affinities is again substantiated by these Montego Bay Odonata.

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LIST OF SPECIES

*Ortholestes clara* Calvert. Confined to Jamaica, where apparently it is found only on the eastern end of the island. Two males were secured at Cinchona on the summit of the Blue Mountains, 5,000 feet above sea level; not seen elsewhere.

*Lestes spumarius* Selys. Confined to the West Indies; fairly common around the ponds and along the dead water of the rivers.

*Telebasis dominicana* (Selys). Found on several of the West Indies and in Guiana; rather rare at the large pond on the Jarrett sugar estate; not found elsewhere.

*Ceratura capreola* (Hagen). Recorded from several of the West Indies and Brazil; "almost the smallest species known" (Hagen); extremely common at the large pond on the Jarrett estate, but not seen elsewhere; both orange and green females were secured with the males; two of the orange females have only a tiny blue spot on the ninth segment.

*Micronympha ramburii* (Selys). Recorded from several of the West Indies and on the continent from the northern United States to Peru and Venezuela. Orange, olivaceous, and black females were secured with the males; some of the males have the ninth segment entirely blue on the dorsal surface like *fluvialis*, but the appendages are those of *ramburii*.

*Enallagma doubledayi* (Selys). Found in Cuba and in North America from Florida to Massachusetts; fairly common at the small pond on the Hale estate, but only one specimen seen elsewhere.

*Enallagma coecum* (Hagen). Recorded from Cuba and St. Thomas, but not before from Jamaica; rather rare and found only at the pond on the Jarrett estate.

*Enallagma civile* (Hagen). Found in several of the West Indies, all over the United States, in Canada, Mexico and Texas; not previously recorded from Jamaica; fairly common at all the ponds.

*Amphiagrion vulneratum* (Hagen). Confined to the West Indies, where it has been recorded from Cuba and Porto Rico, but not before from Jamaica; comparatively rare and found only at the pond on the Jarrett estate.

*Amomalagrion hastatum* (Say). Recorded from Cuba, but not hitherto from Jamaica; found also in Venezuela and in the United States from Florida to Maine; both black and orange females found with the males; very abundant at the pond on the Jarrett estate.



*Acanthagyna septima* (Selys). Recorded only from Cuba, Jamaica, and Brazil; extremely rare, but a single female being seen during the season; this was secured on a wood road at some distance from the water.

*Pantala flavescens* (Fabricius). Found in the West Indies and all parts of the tropics of both hemispheres; "no other species occupies so many countries" (Hagen); quite rare at Montego Bay, only two individuals being seen, one of which was caught.

*Tramea abdominalis* (Rambur). Found on many of the West Indian islands; fairly common at Montego Bay around the small ponds, but sticks closely to the water.

*Miathyria marcella* (Selys). Recorded from Cuba, Brazil and Mexico; only a few specimens seen at Montego Bay and but a single male secured.

*Trithemis umbrata* (Linnaeus). Found on many of the West Indies and in North America from Mexico to Georgia; extremely abundant in tropical South America; the most common dragon fly in Jamaica; found everywhere around small pools as well as the ponds and at long distances from any water. A single female was secured, whose wings were blotched with black like those of the male.

*Trithemis justiniani* (Selys). Confined to Cuba and Jamaica; a very common species around the shores of the ponds and on the vegetation in shallow water; flavescent spots on the wings of the male conspicuous during flight.

*Trithemis ochracea* (Burmeister). Common in meridional America and recorded from Cuba, but not hitherto from Jamaica; very rare at Montego Bay, only two males seen along a ditch by the railroad track, both of which were captured.

*Orthemis ferruginea* (Fabricius). Very common throughout the West Indies and in tropical America; abundant everywhere in Jamaica, preferring the ponds, but found also in the vicinity of small pools and at long distances from water.

*Macrothemis celeno* (Selys). Confined to the West Indies; common along the rivers in the Blue Mountains in company with *Scapanea frontalis*, but not seen down nearer the sea level; a typical river species and not found around the ponds.

*Dythemis rufinervis* (Burmeister). Confined to the West Indies; comparatively rare at Montego Bay, being found at only the largest of the ponds and there in small numbers.

*Scapanea frontalis* (Burmeister). Confined to the West Indies; common along the rivers in the Blue Mountains, even at a considerable elevation (4,500 feet) above the sea; also found along the dead water at the sea level; another typical river species.

*Lepthemis verbenata* Hagen. Found in Cuba, Brazil, and Venezuela, but not before reported from Jamaica; comparatively rare at Montego Bay, sticking closely to the ponds; the most difficult of all the Jamaica Odonata to capture.

*Lepthemis vesiculosa* (Fabricius). Found on many of the West Indian islands, and on the continent from Mexico to Brazil; fairly common in Jamaica, with habits very similar to those of *Mesothemis simplicicollis*, frequenting the denser portions of the reeds and rushes, where it is difficult to manipulate a net.



*Micrathyria aequalis* (Hagen). Found in Cuba and also in Mexico and Grenada; a small species quite common around the ponds and preferring the vegetation that grows in deeper waters; this species patrols the center of the ponds, while *T. justiniani* hunts along the shores.

*Micrathyria didyma* (Selys). Confined to the West Indies; comparatively rare at Montego Bay and found only in the vicinity of the larger ponds; considerably larger than the preceding species and both of them very active and agile flyers.

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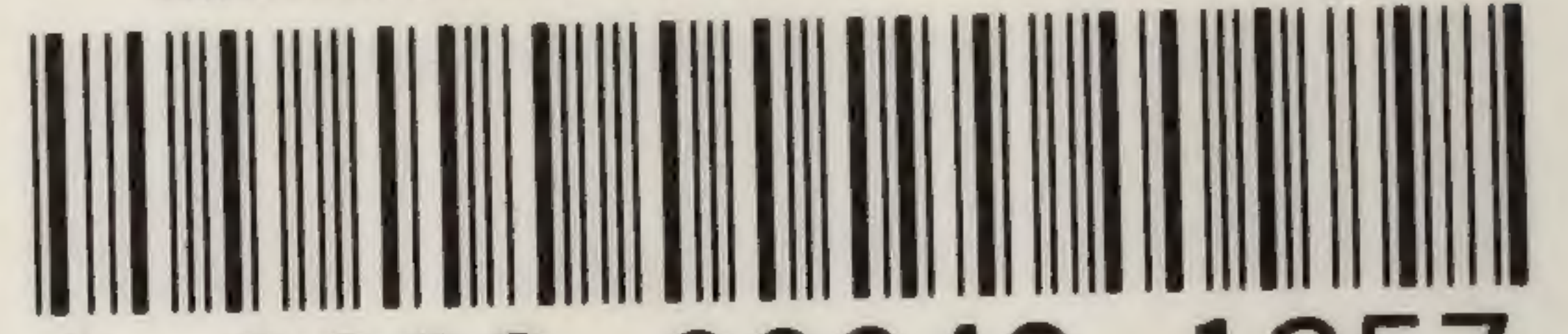








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